

Rapid Identification of Species and Origin in Processed Seafood

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The official link for this solicitation is:

https://www.fbo.gov/index?s=opportunity&mode=form&id=35d644c4794ce7203151552e947505d3&tab=core&_cview=1

Agency:
Department of Commerce

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Description:

Summary: Seafood substitution is a significant form of seafood fraud, which can have negative economic and environmental impacts. While morphological identification of whole fish is relatively easy, the challenge arises when attempting to identify processed fish products, which have lost their distinctive morphological characteristics. Additionally, heavy processing may have denatured proteins and DNA, further complicating potential identification. An additional challenge is the potential for substitution of cultured and wild caught fish. Current identification methods are time-consuming, and require access to a well-equipped laboratory, making it very difficult for consumers to detect substitutions.

Project Goals: Successful projects will develop a method for detecting species and origin substitutions for processed seafood that is:

- rapid (less than 8 hours)
- portable (approximately the size of a standard briefcase)
- robust to use by non-specialists
- 95% accurate for discriminating species and origin.

Phase I Activities and Expected Deliverables: Deliverables will include identification of

appropriate technologies and selection of target species group.

Phase II Activities and Expected Deliverables: Deliverables will include a prototype system for species and origin discrimination. This should include at least 5 commercially important species and their most common substitutes.